REMARKS

The Examiner is thanked for his careful reading of the application. The objection to claim 25 is overcome by changing the dependency of claim 25 to claim 18, as suggested by the Examiner.

Claims 1-3, 14-16, 27-29, 36 and 37 are rejected under 35 USC 102(e) as being anticipated by US 2006/0165091 A1, (Arima et al.) Claims 1, 14, 27 and 36 are independent claims. The rejection of these claims is respectfully disagreed with, and is traversed below.

Claim 1 recites in part:

> **making a measurement from a forward channel to obtain a measurement result value**, quantizing the measurement result value in accordance with an *N* level quantization to obtain a code, and reporting the code on a reverse channel;
>
> converting the reported code to a number;
>
> comparing the number to a threshold; and
>
> if the comparison **indicates that the number may not accurately reflect the measurement result value**, adjusting the number using an adjustment factor.

It is first noted that Arima et al. do not mention "quantizing" or "quantized" in their specification. Further, the table shown in Figure 5 does not represent "quantizing the measurement result value in accordance with an *N* level quantization to obtain a code", but instead "illustrates the data configuration of an adaptive modulation parameter table" (paragraph [0018]). Paragraph [0011], lines 1-4, state simply that in accordance with conventional practice, the CQI is considered when determining adaptive modulation parameters.

Further still, and by example, Arima et al. do not expressly disclose or suggest the final element of claim 1. Any adjustment to the CQI value in Arima et al. is not made in response to a comparison that "indicates that the number may not accurately reflect the measurement result value". Instead, the conversion of the CQI value in paragraph [0036] is made in response to a

required quality of service (QoS) level for an upcoming packet transmission. See, for example, paragraph [0035]:

> The offset table 111 receives the UE/queue selected from the scheduler 105 and **outputs the corresponding offset value to the CQI conversion section** 112. FIG. 4 illustrates the data configuration of this offset table 111. Suppose the base station is **notified of a value corresponding to the QoS level of each packet** from the higher-level apparatus for each packet. It is appreciated that **as the QoS level (e.g., real-time characteristic of data) increases, the absolute value of an offset value increases. 0 is set as an offset for data with a low QoS level (e.g., best effort data with a low real-time characteristic). That is, the CQI value does not change for such data even after a correction**. Here, for clarity, a table type data in which offset values are set for QoS's of the respective packets is shown, but the memory 101 actually stores packets in queues corresponding to QoS's of the respective packets and notifies the offset table 111 of the queues in which the respective packets are stored, and therefore offset values corresponding to the respective queues are actually set in the table.

When paragraph [0036] is read in the context of paragraph [0035] it is clear that CQI value adjustment by Arima et al. has nothing to do with any CQI-related number not accurately reflecting the measurement result value that was quantized and converted to the number. Instead, Arima et al. are concerned with adjusting the CQI value as a function of QoS.

Even if one where to assume, for arguments sake, that the CQI value received by the base station of Arima et al. was a result of a measurement made by the mobile station, and that the measurement value was quantized in accordance with an N level quantization to obtain a code that was reported on a reverse channel, the procedure applied by Arima et al. would still clearly not anticipate or suggest the claimed subject matter. In fact, Arima et al. do not disclose that they are aware of the problem that the CQI value at the base station may not accurately reflect the measurement value at the mobile station, such as due to a quantization error at the mobile station, and thus Arima et al. do not address the problem not suggest a solution to the problem.

The Examiner is respectfully reminded that for a rejection to be made on the basis of anticipation, it is well recognized that "to constitute an anticipation, all material elements recited in a claim

must be found in one unit of prior art", Ex Parte Gould, BPAI, 6 USPQ 2d, 1680, 1682 (1987), citing with approval In re Marshall, 578 F.2d 301, 304, 198 USPQ 344, 346 (CCPA 1978).

The adjustment to the CQI value in Arima et al., which is based on a required QoS, clearly does not meet the threshold for rejecting claim under 35 U.S.C. 102(e), and the rejection should be withdrawn.

In that claim 1 is patentable over Arima et al., then claims 2-13 are patentable as well, whether considered only in view of Arima et al. or in view of Arima et al. and the other art cited and applied by the Examiner.

Clearly, then, the disclosure of Arima et al. does not expressly disclose at least the last element of independent claim 14:

> a base station comprising circuitry and a computer program controlling operation of the circuitry to convert the code to a number, to compare the number to a threshold and, **if the comparison indicates that the number may not accurately reflect the measurement result value, to adjust the number using an adjustment factor**.

These arguments apply as well to independent claims 27 and 36, which contain somewhat similar subject matter.

In that claims 14, 27 and 36 are clearly allowable over Arima et al. then all claims that depend from these independent claims are allowable as well, whether considered only in view of Arima et al. or in view of Arima et al. and the other art cited and applied by the Examiner.

Independent claims 31 and 38 have been rejected under 35 USC 102(e) as being anticipated by Kim et al. (US 2003/0137955 A1). The rejection is respectfully disagreed with, and is traversed below.

Claim 31 is drawn to a mobile station component and recites in part:

> circuitry and a computer program controlling operation of the circuitry to make a measurement from a forward channel to obtain a measurement result value, to quantize the measurement result value in accordance with an *N* level quantization to obtain a code, to report the code on a reverse channel to a wireless communication system infrastructure component, and to **determine a value of an adjustment factor for use by the infrastructure component when processing the code by being responsive to a period of time when the obtained codes do not accurately reflect actual measurement result values to determine a difference between individual ones of actual measurement result values and a threshold measurement result value, to average the difference values and to report the average of the difference values as the adjustment factor to the infrastructure component.**

Clearly, at least the emphasized portion of claim 31 is not expressly disclosed by Kim et al. Instead, Kim et al. attempt to reduce an amount of feedback information from the mobile station to the base station in an OFDM-type of system. In paragraph [0040], cited by the Examiner, what is actually stated is the following (when read in conjunction with paragraph [0039]):

> [0039] Referring to FIGS. 1 and 4, a mobile station measures a C/I through the forward link channel estimator 110 in step 410, and provides the measured C/I to the feedback information generator 120. The feedback information generator 120 then receives the measured C/I, and determines in step 420 whether a current time, or a time slot #k, is a reference C/I transmission time slot. **If it is determined that the time slot #k is a reference C/I transmission time slot, the feedback information generator 120 quantizes the measured C/I value as a predetermined bit, i.e., `nf` bit, in step 430. The feedback information generator 120 stores the quantized value in an accumulator (not shown) in step 440, and generates feedback information using the value stored in the accumulator in step 450.**
>
> [0040] **However, if it is determined in step 420 that the current time slot is not a reference C/I transmission time slot, the feedback information generator 120 calculates a difference value between a C/I value previously stored in the accumulator and the measured C/I in step 460. In step 470, the feedback information generator 120 quantizes the calculated difference value as a predetermined bit, i.e., `nd` (number of differential feedback bit per sub carrier) bit. In step 480, the feedback information generator 120 updates a value of the accumulator at the current time slot by adding the**

> **quantized difference value to the value previously stored in the accumulator.** The updated value is used in determining a TD value at a next time slot #(k+1). Here, the `nd` bit has a smaller value than that of the `nf` bit. As a result, the use of the relative value contributes to a reduction in amount of feedback information that must be transmitted.

Turning then to paragraph [0049], also cited by the Examiner, what is stated in regard to another embodiment is simply:

> [0049] Alternatively, if it is determined in step 820 that the current time slot is not an average C/I transmission time slot, the feedback information generator 120 calculates a relative value TD of a time domain for the average C/I in steps 860 and 870. A process of determining a relative value TD of a time domain for the average C/I is identical to the TD value calculation process described above with reference to FIG. 4, so a detailed description thereof will be omitted for simplicity.

Clearly, this discussion by Kim et al. of measuring C/I values during reference time slots and non-reference time slots, quantizing and storing difference values, etc., does not disclose at least a determination of a "value of an adjustment factor for use by the infrastructure component when processing the code by being responsive to a period of time when the obtained codes do not accurately reflect actual measurement result values to determine a difference between individual ones of actual measurement result values and a threshold measurement result value, to average the difference values and to report the average of the difference values as the adjustment factor to the infrastructure component", as is recited in claim 31. The same argument is advanced for the subject matter of independent claim 38.

In that claims 31 and 38 are both clearly not anticipated by, and are allowable over, Kim et al., then all claims that depend from claims 31 and 38 should also be allowable over Kim et al., whether considered alone or in combination with other art cited and applied by the Examiner.

The Examiner is respectfully requested to favorably consider and allow all of the pending claims 1-40 as now presented for examination. An early notification of the allowability of claims 1-40 is earnestly solicited.

Respectfully submitted:

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July 5, 2007 — Jodie Donniak

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